ENVIRONMENTAL NEWS



NewsletteroftheN.H.DepartmentofEnvironmentalServices

November/December 2001

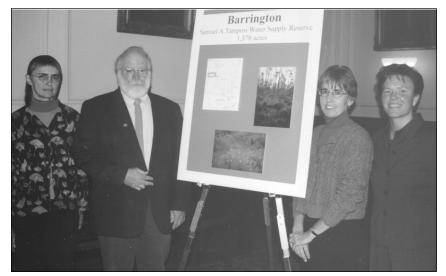
Governor announces first water supply land conservation grants

Ov. Jeanne Shaheen announced recently that the State of New Hampshire is awarding \$1.3 million in grants to protect more than 1,900 acres of land surrounding critical water supply areas. These are the first grants awarded under the state's new Water Supply Land Conservation Grant Program, proposed by Gov. Shaheen.

"Water is a precious resource and will only become more so in the 21st century. We have a responsibility to make sure that New Hampshire families in the future will have access to clean drinking water. Land conservation and clean drinking water go hand-in-hand. By preserving land around our drinking water supplies, we can help prevent contamination," Gov. Shaheen said. "These grants are an important partnership between the state and local communities that will help preserve and protect our water supplies."

In 1998, research by the Society for the Protection of New Hampshire Forests found that only 11 percent of the source water lands in the state are conserved. The study also found that 39 percent of community water systems did not even control the area 400 feet around their wells, the recommended minimum sanitary protective area.

GRANTS, continued on page 2



DES Water Supply Land Grant Coordinator Sherry Godlewski (far right), joins Kai Stapelfeldt and Bob Eckert from the Town of Barrington and Catherine Hahn from the Forest Society at the Governor's recent press announcement.

DES joins in state's heightened security

The events of September 11th have had ripple effects that understandably have touched us all. At the state level, Governor Shaheen has convened a Commission on Preparedness and Security with representatives from a variety of state agencies, including DES, to focus upon security issues. Chaired by State Fire Marshal Don Bliss, the Commission is focused on improving New Hampshire's readiness to respond to incidents of terrorism.

Here at DES, much attention has been placed on ensuring the security of facilities that could potentially be terrorist targets, including public drinking water systems and dams with high hazard potential. Though the issue of facility security and emergency planning is nothing new for DES, a heightened sense of vigilance has led to additional steps being taken.

"For years, all of our state's major water sup-

SECURITY, continued on page 5

N.H. Geological Survey formally recognized at DES

This summer, New Hampshire became the latest state to have a formal state geological survey or geologic bureau within its state government. This formal recognition will enhance data collection and management of the state's natural resources, particularly in the critical area of groundwater resources.

The new unit, created in June when Gov. Shaheen signed into law House Bill 245, "shall collect data and perform research on the land, mineral, and water resources of the state, and disseminate the findings of such research to

NHGS, continued on page 2

GRANTS

continued from page 1

In response, Gov. Shaheen proposed the Water Supply Land Conservation Grant Program, and signed legislation in June 2000 establishing it. The program provides a 25 percent state match to help communities purchase water supply areas. The Forest Society is working in conjunction with DES to implement the program.

Gov. Shaheen announced four grants, totaling \$1.3 million, which will protect more than 1,900 acres of water supply lands in Barrington, Nashua, Portsmouth, and Raymond.

Barrington received a grant award to protect 1,378 acres, which includes the headwaters to the Bellamy River and Reservoir and the Oyster River. Raymond received a grant to purchase land abutting the Town's well field and the Lamprey River. Portsmouth received funding to support its efforts to protect Great Bog, which is in the source water protection area for one of the city's wells. The City of Nashua will also receive a grant for the acquisition of land abutting Pennichuck Pond.

Barrington is undertaking its water supply land protection effort in partnership with other communities, which also rely on the Bellamy River and Reservoir and Oyster River. This unique partnership included matching funds from Barrington, Dover, Durham, Madbury, Lee, and the University of New Hampshire to protect these critical water supply lands. The participating towns and UNH have been active in planning for the stewardship of this property and the Forest Society will hold a conservation easement to ensure long-term protection of the land.

Gov. Shaheen fully funded the water supply land conservation program for 2002 and 2003, and DES is currently considering applicants for the next round of grant awards, which will take place this spring.

NHGS

continued from page 1

the public through maps, reports, and other publications."

Coinciding with the establishment of the Geological Survey (NHGS), the staff of the Water Management Section was merged with the State Geologist's office and now functions as the NHGS staff. Thus, the NHGS staff will maintain its role of collecting and managing water well construction and water use data, managing the state's water-level monitoring network, and providing other related information.

"We plan to enhance the accessibility of our services," said State Geologist David Wunsch. "For example, we hope to upgrade our water well data base to become more easily accessible to DES staff and the public. In addition, there is a wealth of hydrogeologic information contained in our records, and we hope to 'mine and process' the data to create useful publications such as depth-to-bedrock maps, and pro-

duce statistical analyses of well data to better delineate hydrogeological and geochemical anomalies, such as arsenic, radon, fluoride, and salt water problems.

"We are also aggressively implementing our *Statemap* geological mapping program," Wunsch went on to say, "where we will continue to map the surficial deposits at the 1:24,000 scale, and make the data available as seamless digital layers that can be used though the DES *One-Stop* and *Granit* databases. This year we plan to geologically map and study the Lakes Region, which is the most seismically active area in New Hampshire."

For more information about the New Hampshire Geological Survey, please call (603) 271-6482. The NHGS also has over one hundred publications pertaining to New Hampshire's geology for sale. For a complete listing, please go to www.des.state.nh.us/geo1link.htm, or call the DES Public Information Center at (603) 271-2975.

Currently, 70 percent of the state's population and most places of employment rely on public drinking water supplies, according to DES Assistant Commissioner Dana Bisbee.

"Great progress has been made in the protection of New Hampshire's sources of public drinking water through education, voluntary use of best management practices, and land use regulation," Bisbee said, "and these grants enable the permanent protection of land surrounding public drinking water sources. Years ago, when land was much less expensive, land acquisition was a common approach to source water protection. But in recent years, new acquisitions of water supply lands have been rare."

For more information, please contact DES at 271-0688 or visit DES's web site at www.des.state.nh.us/dwspp/acqui.htm.

ENVIRONMENTAL N E W S

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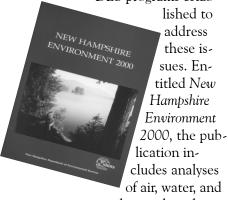
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New Hampshire state-of-the-environment report published *Available to the public*

ES recently published a state-ofthe-environment report designed to provide a valuable overview of the wide-ranging environmental challenges currently facing New Hampshire. It also reviews the variety of

DES programs estab-



waste management data gathered through the end of last year.

New Hampshire's environmental concerns, like those facing other states, span a broad array of complex issues – from air quality issues like mercury deposition, greenhouse gas emissions and ground level ozone, to waste management matters that include site cleanups, to water quality problems created by shoreland impacts and exotic aquatic weeds.

"In recent years substantial progress has been made in meeting our state's goals of ensuring clean air and water and maintaining healthy ecosystems," commented DES Assistant Commissioner Dana Bisbee. "This has come about as a result of the hard work of the environmental and business communities, legislators, government agencies, and many committed citizens. Yet there is still much to be done, and many of the environmental problems that we face today are very complex, particularly those that are regional, and even global, in nature."

Bisbee emphasized that New Hampshire Environment 2000 explores these complex environmental challenges and provides an opportunity for people to learn more about how they are being met in our state. "Through its text and photographs, and especially through its descriptive charts, diagrams, and other graphics, it is designed to serve as a tool to better evaluate our state's progress and to focus upon the important tasks that lie ahead."

Underscoring that we all have a stake in the success of our environmental programs, Bisbee added, "Individuals across our state can and do make a difference in the field of environmental protection through their diverse stewardship efforts. We hope that *New Hampshire Environment 2000* will help inform the public about New Hampshire's environment in a way that enhances those efforts."

People are invited to request a free copy by calling DES's Public Information Center at (603) 271-2975 or by going to "What's New" on DES's web site, www.des.state.nh.us.

Turning our state fairs green

Experimental project at Hopkinton State Fair composts two tons of food waste

During this year's Hopkinton State Fair, something besides french fries and onion rings were cooking. It was compost.

With support from Alan Hardy, Hopkinton State Fair Manager, Derek Owen, State Representative for Hopkinton, and Marc Morgan, DES Recycling Coordinator, a pilot food waste composting program was established at the Hopkinton State Fair.

Food vendors were given 30-gallon galvanized barrels to collect only "preplate" food scraps. Pre-plate refers to the food waste generated during meal preparation, which can be easily separated. The scraps, which included unused dough, onion peelings, coffee grounds, lemon rinds and french fries, were collected by Fair staff and incorporated into manure piles.

Since the topsoil on the fairgrounds is thin and easily eroded away by foot and vehicle traffic, the resulting compost and animal manure will be used on the fairground parking lots and around the grounds to amend soils and slow erosion.

Composting food waste also reduces solid waste disposal needs and costs. By managing the food waste on site, the fair diverted approximately two tons of food waste from disposal. This diversion will reduce the cost for transportation to a disposal site, as well as the cost for its ultimate disposal.

Given the success of this project, the concept will be presented to other agricultural fairs to help reduce waste and increase soil fertility. For more information on composting projects, visit the Department of Environmental Services web site at www.des.state.nh.us.

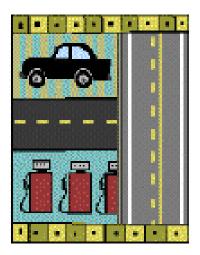
Governor: state adopts rule to allow the sale of gasoline without MtBE Necessary step in effort to free New Hampshire from federal MtBE requirement

Ov. Jeanne Shaheen recently announced that New Hampshire has approved a rule that will enable gasoline suppliers in New Hampshire to sell gasoline without, or with much less, MtBE, a necessary step in the state's efforts to free itself from the federal MtBE requirement.

The Clean Air Act, and the inaction of Congress to change it, has prevented states from eliminating MtBE from their gasoline. In the absence of other legal alternatives, Gov. Shaheen and DES in May submitted a petition to the U.S. Environmental Protection Agency (EPA) seeking to immediately opt out from the Federal Reformulated Gasoline Program.

Under current EPA rules, states are prevented from opting out of the program until January 2004. Gov. Shaheen has petitioned the EPA to allow New Hampshire to leave the program immediately. She has also repeatedly called on Congress to eliminate the federal oxygenate requirement, which mandates the use of oxygenates such as MtBE in gasoline.

As part of the opt-out process, EPA requires that New Hampshire develop a substitute gasoline formula or adopt other pollution control programs to enable the state to still meet federal Clean Air Standards. The State also has to adopt rules implementing



the use of a new gasoline formula and submit them to the EPA for approval. Recently, the Joint Legislative Committee on Administrative Rules approved initial rules governing a substitute gasoline formula.

"The facts are simple and the science is clear: first, MtBE is contaminating our water supplies and second, MtBE is not necessary to protect our air quality here in New Hampshire. We have taken every possible step to remove MtBE from our gasoline. It is now time for the EPA to act on New Hampshire's petition and let us sell gasoline without MtBE," Gov. Shaheen said.

The new rule calls for the use of "Oxygen-Flexible Reformulated Gasoline (OFRFG)" in New Hampshire. This gasoline will provide the same air quality benefits as the reformulated gasoline that the federal government currently mandates be sold in southern New Hampshire, but will not re-

quire the use of oxygen-rich compounds like MtBE.

MtBE, a gasoline additive originally intended to reduce air pollution, has been found to pose unacceptable risks to drinking water supplies. In testing mandated by legislation approved by Gov. Shaheen, the Department of Environmental Services found that 14 percent of New Hampshire's public water supplies, and as much as 20 percent of private wells analyzed, have some level of MtBE.

"Existing language in the federal Clean Air Act, and the inaction of Congress to change it thus far, has frustrated our efforts – and those of other states - to reduce and eliminate MtBE for the last three years," said DES Assistant Commissioner Dana Bisbee. "In the absence of other rational, legal alternatives for reducing the threat of MtBE contamination, New Hampshire petitioned EPA earlier this year to 'opt-out' of the federal RFG program."

Under Gov. Shaheen's leadership, New Hampshire has developed a comprehensive record of fighting MtBE contamination, setting the nation's most protective standard for MtBE in drinking water, working aggressively to replace old underground storage tanks, and pressing the federal government to take action on MtBE.

SECURITY

continued from page 1

pliers have incorporated security measures into their longterm planning and management," said Harry Stewart, Director of DES's Water Division. "Adequate fencing, locked gates and buildings, and other precautions have routinely been taken at New Hampshire's large water supply systems." Nonetheless, as a proactive measure, DES Assistant Commissioner Dana Bisbee requested in an early October letter to every system in the state, large and small, that they review their emergency response and operating plans and take appropriate additional steps to beef up their security measures as needed. Noting that, to date, "no state or federal agency has indicated that ... New Hampshire public water supplies have been threatened," Bisbee wrote that our state's water supplies "need to be further assessed to ensure that their vulnerability to terrorist attack is minimized." Emphasizing that DES has made it a high priority to provide these suppliers with technical assistance, Bisbee's letter included specific guidance documents outlining appropriate preparedness and emergency response steps for suppliers to take. Also, special education and training sessions were announced.

In addressing public concerns over the possible threats to surface water supplies, Water Division Director Stewart makes a point of emphasizing that the sizeable volume of water in most reservoirs, coupled with their carefully controlled water treatment systems, decreases the likelihood of public health impacts. "The dilution and dispersal of any toxins placed into most surface water supplies would typically render such toxins ineffective. Moreover, chlorination and other treatment steps at water supply treatment plants remove or destroy viruses and most other harmful contaminants." Still, he noted an added measure of security is always warranted and we're pleased that water supply operators statewide, all of whom are state-certified, are cooperating in this precautionary effort."

Stewart added that DES's actions to ensure the safety of dams across New Hampshire have also been emphasized. "Every high hazard dam is required to develop an emergency action plan," he explained. To date, of the 230 dams that must meet this requirement, over 90 percent have already done so, including every one of the state-owned dams, and the rest will be completed this year." He noted, "These are comprehensive, prescriptive documents that are supplied to town officials, providing a well-justified level of assurance to those living downstream of these dams." Additionally, Stewart commented that further measures are also being taken by DES, on a dam-by-dam basis, to step up security at impoundments statewide, especially various measures to block access to the dams.

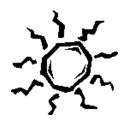
Bisbee commented that DES is continuing to review its

programs in light of discouraging the possibility of terrorist threats. This includes reviewing, and in some instances removing, certain information now on the DES web page. "Though it is unfortunate to have to take such actions, we take our public health and environmental protection responsibilities very seriously, and prudence and caution are now called for more than ever."

Hotter summer brings more air pollution

Trend still positive over last decade

DES announced that warmer temperatures and sunnier skies caused New Hampshire to suffer more unhealthy air quality days last summer than the previous summer. Based on preliminary data, there were 10 days between May 1 and September 30 when monitors in New Hampshire recorded concentrations of ozone, otherwise known as smog, above the level considered healthy under federal standards.



During the same time period in 2000, there was only one day when ozone reached unhealthy levels.

Ozone is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOx) react in the presence of heat and sunlight. It is the

most prevalent air pollutant during the summer months. Although emissions of NOx and VOCs have been reduced in New Hampshire, this summer saw warmer temperatures than last year (nearly three degrees warmer on average in some parts of the state), as well as less cloud cover, making conditions very favorable for forming high levels of ozone.

Overall, there were 31 unhealthy days recorded in all of New England, compared to only 19 total days during 2000.

Although the number of unhealthy days in New Hampshire was greater this year than last, the trend over the past ten years is more encouraging, as it shows an average of eight unhealthy air quality days.

New Hampshire has taken significant steps to implement air pollution control programs and reduce the number of unhealthy air quality days. Nitrogen oxides have been reduced by more than half at fossil fuel fired power plants in New Hampshire, and DES continues to aggressively advocate similar reductions in other states. DES has also supported stronger federal tailpipe emission standards for cars and trucks, and promotes programs to reduce the number of miles traveled by motor vehicles in New Hampshire. Programs such as the free ride program offered by the state's public transit providers during Air Quality Action days will also help reduce air pollution from cars.

New Hampshire Recycles ... Community by Community theme of this year's America Recycles Day

November 15 marks the Fifth Annual America Recycles Day! Once again, DES, in partnership with other recycling related organizations, helped to raise consumer awareness of all aspects of recycling — from collection, to processing, to completing the recycling loop through the purchase of products and packaging made from recycled content products.

The 2001 theme, "New Hampshire Recycles ... Community by Community," underscores the importance of everyone getting involved to reduce waste. Nearly every community in the state has a transfer station and recycling center, and those who don't have curbside collection.

In 2000, New Hampshire generated over 1.3 million tons of trash, or the equivalent of 3.2 pounds of trash per person per day! Almost 300,000 tons of that was recycled or composted. This gives New Hampshire an estimated recycling rate of 25 percent.

To encourage people to do more, America Recycles Day in New Hampshire is sponsoring three contests/give-a-ways. To enter the state-wide con-

test, individuals who pledge to recycle or buy recycled can enter to win a variety of prizes, including a Walden kayak, a one-year supply of Stoneyfield yogurt, an L.L. Bean sleeping bag, and more. Students may enter the School Calendar Drawing Contest. Thirteen drawings will be chosen and put into a calendar to be distributed throughout the state. And finally, municipalities may vie for New Hampshire's Best Municipal Recycling Program. The best program will win Timberland steel-toe boots for its transfer station operators, use of a compost or loam screen from Gorham Tractor, free construction and demolition processing at ERRCO, and more.

To help preserve our environment and our children's future, DES also encourages everyone to buy recycled. Thousands of recycled content products are available, and by purchasing these products, consumers help to build new markets for finished goods made from the steel, glass, paper, plastic, and aluminum materials that they themselves have helped recycle. In New Hampshire alone, there are over a hundred businesses using recycled materials in their manufacturing process.

For more information about these and other events, visit the America Recycles Day—New Hampshire web page on the DES web site, at www.des.state.nh.us/pcas/nhard or contact Marc Morgan at DES, (603) 271-3712, or mmorgan@des.state.nh.us.

DES helps state's lodging industry to "think green"

DES has launched a new initiative to help reduce waste in the state's lodging industry. Working in conjunction with the New Hampshire Lodging and Restaurant Association, the New Hampshire Travel Council, and the New Hampshire Campground Association, DES developed a guide for lodging managers to help them reduce their facilities' environmental impacts.

According to the guide, on average, as much as 70 percent of lodging waste can be prevented, recycled, or composted.

The guide, entitled Staying Green: A Guide to Waste Management for the Lodging Industry in New Hampshire, sets forth specific steps to reduce solid waste and avoid disposal costs. "It also provides guidance for addressing the major barriers to waste reduction," explained DES project coordinator Pierce Rigrod. He noted, "A particularly interesting section is a series of



case studies describing the recycling projects and other waste prevention methods used by companies across New

Hampshire. They provide valuable success stories for others to emulate."

To access the guide on the web, go to www.des.state.nh.us/pcas/greenlodging/. The guide is also available in print, and may be purchased for \$18 through the DES Public Information Center at (603) 271-6812. For more information about sustainable lodging, call Pierce Rigrod, of the DES Waste Management Division, at (603) 271-3713.

State settles hazardous waste claims against Pelham junkyard

The owners of a Pelham junkyard recently agreed to settle the state's claims that the business contaminated soil, groundwater and wetlands with hazardous waste, oil and PCBs.

Under a consent decree approved by the Hillsborough County Superior Court, the state will receive roughly \$640,000 over the next three years to clean up the Gendron junkyard on Hobbs Road in Pelham. For more than twenty years, Frederick Gendron operated an auto shredding business, F. Gendron & Co., which accumulated about 12,000 tons of hazardous waste and PCB-contaminated debris at the junkyard owned by Gendron and his wife, Elizabeth.

The state filed suit against the Gendrons in 1997 after it found that

the piles contained hazardous waste. In 1998, the court granted the state's request that the shredding operation be shut down. Because the Gendrons claimed they were insolvent, the state asked the federal government to fund removal of the waste piles with Superfund monies to address the immediate risks to human health. The U.S. Environmental Protection Agency (EPA) just completed the removal operation earlier this year at a cost of more than \$2 million. The state must now fashion a long-term cleanup that addresses remaining environmental risks from residual hazardous waste and oil in underlying soils and ground-

Although the state was concerned that the contaminants threatened nearby drinking water wells and, as a precaution, provided bottled water to area residents for about a year, state testing shows that contamination from the junkyard has not affected drinking water supplies. The state plans to continue monitoring wells in the residential area surrounding the junkyard.

Under the terms of the consent decree, Gendrons' insurer will immediately pay the state \$187,000, with additional installments over the next three years to total \$637,050, which will be deposited in the state's Hazardous Waste Cleanup Fund. The money will be used to investigate remaining contamination and to perform necessary cleanup actions, including wetlands restoration and long term monitoring of groundwater.

GENDRON, continued on page 8

FAST Team receives defibrillator

Staff members working at 6 Hazen Drive in Concord can now feel a little safer health-wise knowing that the building's First Aid Stabilization Team recently acquired a new, auto-



mated external defibrillator (AED). The device, which provides an electrical shock to stimulate the heart to

resume beating, will improve the survival of those who experience cardiopulmonary arrest on the job.

AEDs are becoming more commonplace in communities around the country. Many shopping malls, commercial airlines, and police cruisers have them available for use. Studies have shown that "rapid defibrillation" greatly improves a patient's chance of survival.

"The defibrillator will be an impor-

tant tool in providing immediate care when a coworker or visitor experiences a witnessed cardiopulmonary arrest," said Tom Marsh, coordinator of the First Aid Stabilization Team (FAST team).

The FAST team consists of

volunteer nurses, EMTs and CPR-trained individuals from the staff of both DES and the Department of Health and Human Services (DHHS). They provide immediate first aid for life threatening injuries, while awaiting the arrival of the Concord Fire Department's paramedics.

Team member Tammy Calligandes, an employee in DES's Waste Manage-



FAST team members check out the defibrillator recently acquired for the DES/DHHS building.

ment Division, was instrumental in investigating and coordinating the procurement of the devise, as well as creating the necessary protocols and procedures that allow the members to use the machine. "Without Tammy's commitment to seeing this to fruition, we would not have this potential lifesaving device today," Marsh commented.

www.des.state.nh.us

Lebanon WWTF wins national award

A fter winning a U.S. Environmental Protection Agency (EPA) regional award earlier this year, the Lebanon wastewater treatment facility became eligible for EPA's prestigious nationwide competition. Just recently, Lebanon received word that it had won commendation as the best medium-sized secondary treatment plant in the entire nation!

EPA's accolade cited the facility and its operators for establishing "an outstanding in-house preventive maintenance program that has saved a significant amount of capital costs." Also, EPA noted that the plant "implemented an outstanding energy savings program, which reduced energy demand by 25 to 35 percent through numerous process equipment and plant upgrades. To address the needs of surrounding communities, the plant become a regional facility, and it established a model industrial pretreatment program."

Congratulations to plant officials Kevin Kingston and Donald Schagen and to their hard working staff. Their efforts are a credit to their city and state, and to the whole water pollution control community.

200 attend annual solid waste conference

ES recently hosted its 2001 Solid Waste Conference at the Geneva Point Conference Center in Moulton-borough. The day-long program, which was attended by 200 operators, consultants, legislators and industry representatives, addressed diverse topics on solid waste management and recycling.

The day began with a joint discussion of regional solid waste issues between Philip O'Brien, DES Waste Management Division Director, and Barbara Kwetz, of the Massachusetts Department of Environmental Protection. Other talks focused upon contract negotiations, enforcement issues, recycling markets, and innovative composting. There were informative vendor displays as well as door prizes. The conference, which is sponsored through the state's Solid Waste Operator Training Program, is a free event held annually in different locations throughout the state.

GENDRON

continued from page 7

The decree also provides the state with a conservation easement on the whole property, including the adjoining residence, for purposes of conducting the final cleanup. The state holds a lien on the property and eventually will obtain title to the entire parcel. In the meantime, Gendron is allowed to conduct some limited recycling of clean scrap metal for the next five years, subject to town ordinances.

Attorney General Philip T.

McLaughlin said, "Our office has vigorously pursued the defendants to make certain that they, not the public, pay for the environmental problems that they have caused and that they are penalized in some way for their actions. By obtaining the property and funding for the state cleanup, we believe that we have accomplished both goals. Most importantly, this settlement ensures that the work needed to ensure protection of public health will be performed."



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